

REMARKS

Applicants acknowledge the allowance of claims 22, 35, 36, 41, and 42. Claims 1-46 are pending. The specification has been amended. Claims 1-3, 9, 10, 12, 17, 32, and 44 have been amended. No new matter has been added by way of this amendment. Reconsideration of the application is respectfully requested.

The Examiner has objected to the specification as failing to provide proper antecedent basis for the claimed subject matter. According to the Examiner, the term “‘blade mounting hub’ found in Claim 3 and 44 lacks antecedent basis in the Specification.” In response to this objection, Applicants have amended these claims to change “blade mounting hub” to “sheath.” Accordingly, reconsideration and withdrawal of the objection are respectfully requested.

The Examiner has objected to the drawings as failing to comply with 37 C.F.R. §1.84(a) because they do not include the following reference(s) mentioned in the description: “20” (page 13, line 5; page 20, line 17). In response to this rejection, Applicant has amended the specification to change the reference numeral from “20” to “26” as shown in Fig. 1. Accordingly, reconsideration and withdrawal of this objection are respectfully requested.

Claims 17 and 32 have been objected to for certain informalities. In response to this ground of objection, Applicants have amended claims 17 and 32 to address each specific objection. Accordingly, reconsideration and withdrawal of the objections are respectfully requested.

Claims 13-16 stand rejected under 35 U.S.C. §112, 1st ¶, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most clearly connected, to make and/or use the invention. As set forth the Office Action, "There will be issues regarding having an assumedly steel [or other metal] effector with a memory inside of it and attempting to do telemetry of this sort. It is unclear how to manufacture such a memory into the effector and how one would design the effector to maintain the resonance. In order to use such as device, one would need to know more fully how to manufacture the device."

In response to this rejection, Applicants respectfully assert that there will be no telemetry issues with respect to the claimed device because: (1) the device memory will be embedded in plastic parts of the assembly, having no electrical contact with the blade; and (2) all metallic parts of the assembly are made from non-ferrous materials. As such, the device will be embedded into the plastic parts utilizing a plastic molding process, which is well known to a person of ordinary skill in the art. In view of the foregoing, Applicants respectfully assert that the specification does not contain subject matter which is not described in such a way as to enable one skilled in the art to which it pertains, or with which it is most clearly connected, to make and/or use the invention. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Claim 9 stands rejected under 35 U.S.C. §112, 2nd ¶ as being indefinite. In response to the rejection, Applicants have amended claim 9 to address the specific objection. Accordingly, reconsideration and withdrawal of the objection are respectfully requested.

Claims 1-12, 17, 21, 24-32, 38-40, and 44-46 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,017,354 to *Culp et al.*, while claims 18, 19, and 23 stand rejected under 35 U.S.C. 103(a) as being unpatentable over the same reference in view of U.S. Patent No. 5,400,267 to *Denen et al.* Claims 20, 24, 37, and 43 stand rejected under 35 U.S.C. 103(a) as being unpatentable over *Culp et al.* in view of U.S. Patent No. 6,331,181 to U.S. Patent No. 6,331,181 to *Tierney et al.* Lastly, claims 20 and 33 stand rejected under 35 U.S.C. 103(a) as being unpatentable over *Culp et al.* in view of U.S. Patent No. 6,298,255 to *Cordero et al.* In response to these several grounds of rejection, Applicants have amended independent claims 1-3, 9, 10, 12, 32, and 44 to emphasize those features of the invention that distinguish it from the cited references. Accordingly, for the reasons set forth hereafter, Applicants respectfully submit that all claims of record now distinguish over the cited references.

Independent claims 1-3, 9, 10, 12, 32, and 44 have been amended to recite the limitation "a memory disposed in the sheath of the end-effector which optimizes the generator console for operation with the end-effector to achieve optimal tissue effects with the end-effector."

Support for this limitation may be found on page 8, lines 3-6; page 14, lines 14-16; and page 36, lines 4-8 of the specification. Accordingly, Applicants respectfully submit that this limitation does not constitute new matter.

U.S. Patent No. 6,017,354 to *Culp et al.* relates to an integrated surgical tool system for energizing different powered surgical handpieces (see *Abs.*).

What does it mean? functional?
defined in p8 11.3-6 as storing info in the memory reading info in the console.
don't really see antecedent basis
vague

it's just a stream of information

"energy level info" same rej. as storing compressed data string - it's just 0's and 1's - info.

Set forth on page 4, paragraph 7 of the Office Action is the statement that:

“An important aspect of Culp’s disclosure that the applicant should understand relates to Culp’s disclosure of an *ultrasonic surgical hand piece*. First of all, in the BACKGROUND OF THE INVENTION, Culp expresses that the reason for his invention - the problem to be solved - is that with all of the modern surgical tools now available it is expensive to keep separate generator consoles for each one [Column 1, lines 50-58]. He is setting out to provide a single integrated console that is able to accept tools having many *different power and controls requirements* [Column 3, lines 44-51] that will save time for surgical staff.” (*Emphasis Added*)

However, Applicants respectfully assert that *Culp* et al. fails to teach the optimization of a generator console using parameters that are stored in a memory that is located in a sheath of an end-effector, or the end-effector itself, as set forth and claimed in the present invention.

In the present invention, the end-effector, e.g. the blade, shears, ultrasonic blade, or ultrasonic shears contains the memory device that alters generator functions in order to achieve optimal desired tissue effects. In addition to achieving optimal tissue effects, this permits the use of handicap limits that are unique to the particular end-effector in use. In this regard, during manufacture of the instrument both drive and handicap parameters that are unique to the end-effector are loaded into each instrument, As a result, the reduction of manufacturing tolerances are achieved, while providing optimal tissue effects when the end effector is used.

In contrast, the subject matter of *Culp* et al. is directed to permitting the attachment and use of different hand pieces to an ultrasonic system. This references says nothing about optimizing a generator console with parameters that are stored in a memory located in the sheath of an end-effector.

U.S. Patent No. 5,400,267 to *Denen et al.* relates to a non-volatile memory disposed within electrically powered medical equipment is described (see *Abs.*). According to this patent, the non-volatile memory may be preprogrammed to store utilization limits and parametric data for the equipment. However, this reference fails to cure the deficiency of the *Culp et al.* patent. Specifically, the *Culp et al.* patent fails to teach the limitation “a memory disposed in the sheath of the end-effector which optimizes the generator console for operation with the end effector to achieve optimal tissue effects with the end effector,” as set forth in the amended independent claims.

U.S. Patent No. 6,331,181 to *Tierney et al.* teaches robotic surgical tools, systems, and methods for preparing for and performing robotic surgery include a memory mounted on the tool (see *Abs.*). However, this reference fails to cure the deficiency of the *Culp et al.* patent. Specifically, the *Tierney et al.* patent also fails to teach the limitation “a memory disposed in the sheath of the end-effector which optimizes the generator console for operation with the end effector to achieve optimal tissue effects with the end effector,” as set forth in the amended independent claims.

U.S. Patent No. 6,298,255 to *Cordero et al.* teaches a sensor system which includes a biopotential signal monitor, a smart sensor and the accompanying hardware and software interface which authenticates the source and validity of the smart sensor and also verifies that the smart sensor meets various criteria for use (see *Abs.*). However, this reference fails to cure the deficiency of the combined *Culp et al.* and *Tierney et al.* patents. Specifically, the *Cordero et al.* patent also fails to teach the limitation “a memory disposed in the sheath of the end-effector which optimizes the generator console for operation with the end effector to achieve optimal tissue effects with the end effector,” as set forth in the amended independent claims.

